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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GILSBERT JOSEPH VAN DEN ENDEN

Appeal 2008-0521
Application 09/787,095¹
Technology Center 2600

Decided: July 24, 2008

Before KENNETH W. HAIRSTON, SCOTT R. BOALICK,
and MARC S. HOFF, *Administrative Patent Judges*.

BOALICK, *Administrative Patent Judge*.

¹ Application filed March 13, 2001. Application 09/787,095 claims the benefit under 35 U.S.C. § 119 of German application 19932658.4, filed July 15, 1999. The real party in interest is U.S. Philips Corporation.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1-20, all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

STATEMENT OF THE CASE

Appellant's invention relates to an optical recoding device for recording on rewritable media that controls the output power of the laser diode used for writing.

Claim 1 is exemplary:

1. An electronic optical recording device for optical recording on rewritable media, with which two different states can be recorded by adjusting a power level of a laser diode depending on information content to be generated on the media,

characterized in that during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

| | | |
|--------------|--------------|---------------|
| Van Rosmalen | US 4,536,864 | Aug. 20, 1985 |
| Kaku | US 4,807,210 | Feb. 21, 1989 |
| Johann | US 5,184,343 | Feb. 2, 1993 |
| Aoki | US 5,712,839 | Jan. 27, 1998 |

Claims 1-6 and 17-20 stand rejected under 35 U.S.C. § 112, second paragraph.

Claims 1, 2, 6-8, and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Aoki.

Claims 3-5, 9-11, and 13-20 stand rejected under 35 U.S.C. § 103(a) as being obvious over Aoki and Johann.

Rather than repeat the arguments of Appellant or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellant have been considered in this decision. Arguments that Appellant did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).²

PRINCIPLES OF LAW

On appeal, all timely filed evidence and properly presented arguments are considered by the Board. *See In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984).

In the examination of a patent application, the Examiner bears the initial burden of showing a prima facie case of unpatentability. *Id.* at 1472. When that burden is met, the burden then shifts to the Applicant to rebut. *Id.*; *see also In re Harris*, 409 F.3d 1339, 1343-44 (Fed. Cir. 2005) (finding

² Except as will be noted in this opinion, Appellant has not presented any substantive arguments directed separately to the patentability of the dependent claims or related claims in each group. In the absence of a separate argument with respect to those claims, they stand or fall with the representative independent claim. *See* 37 C.F.R. § 41.37(c)(1)(vii).

rebuttal evidence unpersuasive). If the Applicant produces rebuttal evidence of adequate weight, the prima facie case of unpatentability is dissipated. *In re Piasecki*, 745 F.2d at 1472. Thereafter, patentability is determined in view of the entire record. *Id.* However, on appeal to the Board it is the Appellant's burden to establish that the Examiner did not sustain the necessary burden and to show that the Examiner erred. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006).

During examination of a patent application, a claim is given its broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969). "[T]he words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal citations omitted). The "ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313.

The purpose of the second paragraph of 35 U.S.C. § 112 "is to provide those who would endeavor, in future enterprise, to approach the area circumscribed by the claims of a patent, with the adequate notice demanded by due process of law, so that they may more readily and accurately determine the boundaries of protection involved and evaluate the possibility of infringement and dominance." *In re Hammack*, 427 F.2d 1378, 1382 (CCPA 1970). The test for definiteness under the second paragraph of 35 U.S.C. § 112 is "whether those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986).

ANALYSIS

Rejection under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 1-6 and 17-20 under 35 U.S.C. § 112, second paragraph,

as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: e.g., means or structural elements for providing the claimed results, i.e., recording two different states, adjusting a power level, measuring from the spot of only one of the states, controlling the power for writing both states, etc.

(Ans. 3.) The Examiner explained that independent "[c]aim 1, which is an apparatus claim, recites an electronic optical recording device, but does not positively recite the components of the electronic optical recording device."

(Ans. 7.) The Examiner also found that:

[t]he recitation "*for optical recording on rewritable media, with which two different states can be recorded by adjusting a power level of a laser diode depending on information content to be generated on the media*" is nothing more than a recitation of function and intended use in the preamble. The recitation "*characterized in that during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states*" is nothing more than a recitation of desired results, which does not provide structure to the claimed apparatus, and therefore renders the claim incomplete.

(Ans. 7-8 (emphasis in original).)

Appellant initially notes that the rejection does not identify which one of the two separate requirements³ under the second paragraph of 35 U.S.C. § 112 is being used as the basis for the rejection.⁴ (Reply Br. 2.) However, a careful reading of the Examiner's rejection reveals that the rejection is one of indefiniteness rather than a failure to claim what Appellant regards as his invention.⁵

With respect to indefiniteness, Appellant argues that the claimed limitation "for optical recording on rewritable media, with which two different states can be recorded by adjusting a power level of a laser diode depending on information content to be generated on the media" is "a clear statement defining the metes and bounds of the invention being claimed." (Reply Br. 3.) Appellant also argues that the claimed limitation "characterized in that during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states" is a functional limitation, not a recitation of desired results, and informs the public as to the boundaries of what constitutes infringement.

³ See MPEP 2171. The two requirements are: (1) the claims must set forth the subject matter that applicants regard as their invention; and (2) the claims must particularly point out and distinctly claim the metes and bounds of the subject matter that will be protected by the patent grant.

⁴ "If a rejection is based on 35 U.S.C. 112, second paragraph, the examiner should further explain whether the rejection is based on indefiniteness or on the failure to claim what applicants regard as their invention." MPEP 2171.

⁵ As Appellant notes, "[t]here have been no assertions made by the examiner . . . that the appellants have stated either in the present application . . . or anywhere, that the invention is something different from what is defined by the claims." (Reply Br. 2 (emphasis in original).)

(Reply Br. 3-4.) In addition, Appellant argues that the recited "laser diode" and "measured value of a reflection" are structural, not functional, and "the actual control of the laser diode is clearly states [sic] as being a measured value of the reflection, which is not functional." (Reply Br. 4.)

Based upon the quoted portions of the Examiner's rejection, it appears that the Examiner may have been concerned with the breadth of the claims as opposed to indefiniteness of the claims. It is perfectly permissible for the Appellant to claim the invention in terms as broad as the application disclosure will permit. In other words, the breadth of the claims is not equated with indefiniteness of the claims. *In re Miller*, 441 F.2d 689, 693 (CCPA 1971).

Nevertheless, we conclude that claims 1-6 and 17-20 are indefinite for failing to particularly point out and distinctly define the metes and bounds of the disclosed and claimed invention. In particular, the metes and bounds of the limitation "characterized in that during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states" are ambiguous. The preamble recites "two different states," and therefore it is these two states that are meant by "the states" in the limitation "during writing of the states." However, the limitation "during writing of the states" is ambiguous as to whether it requires the writing of both states simultaneously or the writing of one state at a time. Furthermore, it is ambiguous whether the "spot" in the limitations "a spot that is written for one of the states" and "the spot of only one of the states" refers to the same spot written with the same state, the same spot written with different

states, different spots written with the same state, or different spots written with different states.

Accordingly, we conclude that Appellant has not shown that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 112, second paragraph. Claims 2-6 and 17-20 were not argued separately, and fall together with claim 1.

Rejections under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a)

We do not reach the merits of the Examiner's rejections under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) or the merits of the Aoki and Johann references at this time. Rather, we reverse *pro forma* the outstanding rejections under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) because claims 1-20 fail to satisfy the requirements of 35 U.S.C. § 112, second paragraph.

Before a proper review of the prior art rejections can be performed, the subject matter encompassed by the claims on appeal must be reasonably understood without resort to speculation. *See In re Steele*, 305 F.2d 859, 862 (CCPA 1962) (A prior art rejection cannot be sustained if the hypothetical person of ordinary skill in the art would have to make speculative assumptions concerning the meaning of claim language.); *see also In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970 ("If no reasonably definite meaning can be ascribed to certain terms in the claim, the subject matter does not become obvious-the claim becomes indefinite.")). Presently, speculation and conjecture must be utilized by us and by the artisan inasmuch as the claims on appeal do not adequately reflect what the disclosed invention is under the second paragraph of 35 U.S.C. § 112.

NEW GROUNDS OF REJECTION UNDER 37 C.F.R. § 41.50(b)

We make the following new grounds of rejection using our authority under 37 C.F.R. § 41.50(b).

35 U.S.C. § 112, Second Paragraph

Claims 1-6 and 17-20

Because our reasoning with respect to the rejection of claims 1-6 and 17-20 under 35 U.S.C. § 112, second paragraph, differs from that set forth by the Examiner, we designate our affirmance as a new ground of rejection under 37 C.F.R. § 41.50(b).

Claims 7-16

Claims 7-16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 7 recites, with emphasis added, "means for controlling the power of the laser diode *to be* a measured value of the reflection for writing both states." However, there is no corresponding structure described in the Specification to perform the recited function of "controlling the power of the laser diode *to be* a measured value of the reflection for writing both states." Instead, the Specification teaches that a control circuit 1 includes a multiplying stage 11 that uses the amount of reflected light as an input to control the output power of the laser diode. (Spec. 2:24 to 3:6.) In other words, the Specification discloses structure for controlling the power of the laser diode *based on*, but not *to be*, a measured value of the reflection for writing both states.

Claims 8-16 each depend from claim 7 and are rejected under 35 U.S.C. § 112, second paragraph, for the same reasons discussed with respect to claim 7.

35 U.S.C. § 112, First Paragraph

Claims 1-6 and 17-20

Claims 1-6 and 17-20 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the Specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention without undue experimentation.

Claims 1-6 and 17-20 recite the limitation "characterized in that during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states." This limitation requires that, *during writing of the two different states*: (1) a beam from the laser diode is focused upon a spot that is written for one of the two states; (2) a reflection is measured from the spot of only one of the two states; and (3) a measured value of the reflection is used for controlling the power of the laser diode for the writing of *both* states. In other words, three things (i.e., items numbered (1) to (3) above) are required during the writing of the two states.

The originally-filed Specification does not teach how to write both states simultaneously. Even if simultaneous writing of both states is not

required, the originally-filed Specification does not teach how, for example, while writing the second state, the laser diode is focused at the same time on a spot that is written for the first⁶ state, a reflection is measured from the spot of the first⁷ state, and the measured value of the reflection is used to control the power of the laser diode for writing the second state.⁸ In addition, if the state of the spot that the laser diode is focused on is not the same state as that from which the reflection is measured, or if the spot that the laser diode is focused on is not the same spot from which the reflection is measured, the originally-filed Specification does not teach these features.

The Specification merely states that "during the writing of the states the reflection is measured of only one of the states and the measured value is used for controlling the power of the laser diode even when the other state is written," but does not teach how this is done. (Spec. 2:6-8.) The Specification also states that "[p]referably, when a highly reflecting . . . state is written, the reflected amount of light is measured by means of a signal peak detector and compared to a reference value. . . . The readjustment factor determined in this manner is also retained for writing a low-reflection . . . state," (Spec. 2:9-14) but does not teach how a reflection from a low-reflection state spot is measured at the same time that a high reflection state spot is written.

⁶ As explained *supra*, the actual claim language is ambiguous. For the purposes of this example, we assume that the state of the spot that the laser diode is focused on is different from the state being written.

⁷ As explained *supra*, the actual claim language is ambiguous. For the purposes of this example, we assume that the recited spots refer to the same spot written for the same state.

⁸ The same is true if the first and second states in this example are reversed.

The originally-filed Specification simply contains no teaching or description of how to make and/or use without undue experimentation a device that, *during writing of the two different states*: (1) a beam from the laser diode is focused upon a spot that is written for one of the two states; (2) a reflection is measured from the spot of only one of the two states; and (3) a measured value of the reflection is used for controlling the power of the laser diode for the writing of *both* states. In addition, the originally-filed Specification contains no teaching or description of how to make and/or use without undue experimentation a device that, *during writing of one of the two different states*: (1) a beam from the laser diode is focused upon a spot that is written for the *other* of the two states; (2) a reflection is measured from the spot of the *other* of the two states; and (3) a measured value of the reflection is used for controlling the power of the laser diode for the writing of the state. Moreover, the originally-filed Specification contains no teaching or description of how to make and/or use without undue experimentation a device that focuses the laser diode on a spot that is written for a state which is not the same state as that of the spot from which the reflection is measured, or focuses the laser diode on a spot that is not the same spot as the one from which the reflection is measured.

Accordingly, the originally-filed Specification lacks enablement for the limitation "characterized in that during writing of the states, a beam from the laser diode is focused upon a spot that is written for one of the states, a reflection is measured from the spot of only one of the states and a measured value of the reflection is used for controlling the power of the laser diode for writing of both states" recited by claims 1-6 and 17-20.

Claims 7-16

Claims 7-16 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the Specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

Claims 7-16 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the Specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention without undue experimentation.

Claims 7-16 recite (with emphasis added) the limitation "means for controlling the power of the laser diode *to be* a measured value of the reflection for writing both states." The Specification provides no description for this claim term. Instead, the Specification describes a control circuit 1 that includes a multiplying stage 11 that uses the amount of reflected light as an input to control the output power of the laser diode. (Spec. 2:24 to 3: 6.) However, the claim requires that the controlling means control the power of the laser diode *to be* a measured value of the reflection. The originally-filed Specification simply contains no teaching or description of a "means for controlling the power of the laser diode *to be* a measured value of the reflection for writing both states."

Accordingly, the originally-filed Specification lacks both written description and enablement for the limitation "means for controlling the

power of the laser diode *to be* a measured value of the reflection for writing both states." recited by claims 7-16.

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)).

37 C.F.R. § 41.50(b) provides that, "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellant, *WITHIN TWO MONTHS FROM THE DATE OF THE DECISION*, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 C.F.R. § 1.197 (b)) as to the rejected claims:

(1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner ...

(2) Request rehearing. Request that the proceeding be reheard under 37 C.F.R. § 41.52 by the Board upon the same record ...

CONCLUSION OF LAW

We conclude that:

(1) Appellant has not shown that the Examiner erred in rejecting claims 1-6 and 17-20 under 35 U.S.C. § 112, second paragraph.

(2) Claims 7-16 are unpatentable under 35 U.S.C. § 112, second paragraph, because they are indefinite.

(3) Claims 1-20 are unpatentable under 35 U.S.C. § 112, first paragraph, because they fail to comply with the enablement requirement.

(4) Claims 7-16 are unpatentable under 35 U.S.C. § 112, first paragraph, because they fail to comply with the written description requirement.

DECISION

The rejection of claims 1-6 and 17-20 under 35 U.S.C. § 112, second paragraph, is affirmed.

The rejection of claims 1, 2, 6-8, and 12 under 35 U.S.C. § 102(b) is reversed.

The rejection of claims 3-5, 9-11, and 13-20 under 35 U.S.C. § 103 is reversed.

Claims 7-16 are rejected as being indefinite under 35 U.S.C. § 112, second paragraph.

Claims 1-20 are rejected for failure to comply with the enablement requirement of 35 U.S.C. § 112, first paragraph.

Claims 7-16 are rejected for failure to comply with the written description requirement of 35 U.S.C. § 112, first paragraph.

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New grounds of rejection have been entered under 37 C.F.R.
§ 41.50(b).

No time period for taking any subsequent action in connection with
this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART
37 C.F.R. § 41.50(b)

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